

PATENT  
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Please replace the section of the specification entitled ABSTRACT on page 67, lines 1-14, with the following text:

"ABSTRACT

A substrate apparatus includes a susceptor on which a substrate is placed, and a heating unit disposed below the susceptor for heating the substrate placed on the susceptor. When the substrate is lifted or lowered, at least with respect to a portion of the susceptor, a distance between the susceptor and the heating unit is maintained constant."

IN THE CLAIMS:

Please cancel claims 3, 10, 11, and 12 without prejudice.

Please replace the text of claims 1, 2, and 4-9 with the following text:

1. (Amended) A substrate processing apparatus, comprising:
  - a processing chamber;
  - a susceptor on which a substrate is to be placed; and
  - a heating unit disposed below said susceptor which heats said substrate placed on said susceptor, wherein
  - said susceptor and said heating unit are accommodated in said processing chamber,
  - said substrate is processed in a state in which said susceptor is rotated relative to said heating unit,
  - at least said susceptor is lifted and lowered in said processing chamber,
  - a lifting and lowering apparatus is disposed in said processing chamber which lifts and lowers said substrate with respect to at least a portion of said susceptor, and

when said substrate is lifted or lowered, at least with respect to said portion of said susceptor, a distance between said susceptor and said heating unit is maintained constant.

2. (Amended) The substrate processing apparatus as recited in claim 1, wherein

said heating unit is lifted and lowered in said processing chamber, and said lifting and lowering apparatus lifts or lowers said substrate with respect to at least the portion of said susceptor in association with said lifting and lowering motion of said susceptor and said heating unit.

4. (Amended) The substrate processing apparatus as recited in claim 1, wherein said lifting and lowering apparatus is disposed outside said susceptor.

5. (Amended) The substrate processing apparatus as recited in claim 1, wherein said lifting and lowering apparatus is disposed inside said susceptor.

6. (Amended) The substrate processing apparatus as recited in claim 1, wherein

said susceptor comprises a central member and a peripheral member, and said lifting and lowering apparatus lifts and lowers said central member of said susceptor.

7. (Amended) The substrate processing apparatus as recited in claim 6, wherein

a heater of said heating unit comprises a central heater member corresponding to said central member of said susceptor and a peripheral heater member corresponding to said peripheral member of said susceptor,

outputs of said central heater member and said peripheral heater member are independently controlled, and  
said output of said central heater member is increased while said central member of said susceptor is lifted or lowered.

8. (Amended) A substrate processing apparatus, comprising:  
a susceptor disposed in a processing chamber and on which a substrate is to be placed, and  
a heating unit disposed below said susceptor in said processing chamber for heating said substrate placed on said susceptor, wherein  
an upper surface of a peripheral portion of said susceptor and an upper surface of said substrate placed on said susceptor are flush with each other, and  
when said substrate is lifted or lowered, at least with respect to a portion of said susceptor, a distance between said susceptor and said heating unit is maintained constant.

9. (Amended) The substrate processing apparatus as recited in claim 8, wherein  
a member made of quartz which is flush with an upper surface of said susceptor is disposed in an outer periphery of said susceptor.

Please add new claims 13-24 as follows:

13. (New) A substrate processing apparatus, comprising:  
a processing chamber;  
a susceptor on which a substrate is to be placed; and  
a heating unit disposed below said susceptor which heats said substrate placed on said susceptor, wherein  
said susceptor and said heating unit are accommodated in said processing chamber,

said substrate is processed in a state in which said susceptor is rotated relative to said heating unit,

at least said susceptor is lifted and lowered in said processing chamber,

a lifting and lowering apparatus is disposed in said processing chamber which lifts and lowers said substrate with respect to at least a portion of said susceptor,

said lifting and lowering apparatus moves up or down according to lifting or lowering motion of said susceptor to lifts and lowers said substrate with respect to said portion of said susceptor,

lowering motion of said lifting and lowering apparatus is restricted when said lifting and lowering apparatus abuts a abutting position provided at an arbitrary position of said processing chamber, and

said abutting position is provided on a downside of an upper face of said heating unit and is not located between said heating unit and said susceptor.

14. (New) A substrate processing apparatus as recited in claim 13, wherein

said heating unit is lifted and lowered in said processing chamber, and said lifting and lowering apparatus lifts or lowers said substrate with respect to at least the portion of said susceptor in association with said lifting and lowering motion of said susceptor and said heating unit.

15. (New) A substrate processing apparatus as recited in claim 13, wherein

when said substrate is lifted or lowered, at least with respect to said portion of said susceptor, a distance between said susceptor and said heating unit is maintained constant.

16. (New) A substrate processing apparatus as recited in claim 13, wherein said lifting and lowering apparatus is disposed outside said susceptor.

17. (New) A substrate processing apparatus as recited in claim 13, wherein said lifting and lowering apparatus is disposed inside said susceptor.

18. (New) A substrate processing apparatus as recited in claim 13, wherein  
said susceptor comprises a central member and a peripheral member,  
and  
said lifting and lowering apparatus lifts and lowers said central member of said susceptor.

19. (New) A substrate processing apparatus as recited in claim 13, wherein  
a heater of said heating unit comprises a central heater member corresponding to said central member of said susceptor and a peripheral heater member corresponding to said peripheral member of said susceptor,  
outputs of said central heater member and said peripheral heater member are independently controlled, and  
said output of said central heater member is increased while said central member of said susceptor is lifted or lowered.

20. (New) A substrate processing apparatus, comprising:  
a processing chamber;

a susceptor unit including a susceptor on which a substrate is to be placed;

a heating unit disposed below said susceptor which heats said substrate placed on said susceptor; and

a gas blowout plate which supplies gas from above said substrate to the substantially entire surface of said substrate, wherein

said susceptor and said heating unit are accommodated in said processing chamber,

said heating unit and said susceptor unit rotates relative to each other,

said substrate is processed in a state in which said susceptor is rotated relative to said heating unit,

at least said susceptor is lifted and lowered in said processing chamber,

a lifting and lowering apparatus is disposed in said processing chamber which lifts and lowers said substrate with respect to at least a portion of said susceptor, and

said lifting and lowering apparatus is disposed engaging in both said heating unit and said susceptor unit.

21. (New) A substrate processing apparatus, comprising:

a processing chamber;

a susceptor unit including a susceptor on which a substrate is to be placed;

a heating unit disposed below said susceptor which heats said substrate placed on said susceptor; and

a gas blowout plate which supplies gas from above said substrate to the substantially entire surface of said substrate, wherein

said susceptor and said heating unit are accommodated in said processing chamber,

said heating unit and said susceptor unit rotates relative to each other,  
said substrate is processed in a state in which said susceptor is rotated  
relative to said heating unit,

at least said susceptor is lifted and lowered in said processing  
chamber,

a lifting and lowering apparatus is disposed in said processing  
chamber which lifts and lowers said substrate with respect to at least a portion of  
said susceptor, and

said lifting and lowering apparatus is disposed engaging in both said  
heating unit and said susceptor unit.

22. (New) A substrate processing apparatus, comprising:

a processing chamber;

a susceptor on which a substrate is to be placed; and

a heating unit disposed below said susceptor which heats said  
substrate placed on said susceptor, wherein

said susceptor and said heating unit are accommodated in said  
processing chamber,

said substrate is processed in a state in which said susceptor is rotated  
relative to said heating unit,

at least said susceptor is lifted and lowered in said processing  
chamber,

a lifting and lowering apparatus is disposed in said processing  
chamber which lifts and lowers said substrate with respect to at least a portion of  
said susceptor, and

a gas introducing position, a substrate processing position, a gas  
exhaust position and a substrate transferring in and out position is disposed in this  
order from above.

23. (New) A substrate processing apparatus, comprising:  
a susceptor disposed in a processing chamber and on which a substrate is to be placed, and  
a heating unit disposed below said susceptor in said processing chamber which heats said substrate placed on said susceptor, wherein  
an upper surface of a peripheral portion of said susceptor and an upper surface of said substrate placed on said susceptor are flush with each other,  
a member made of quartz which is flush with an upper surface of said susceptor is disposed in an outer periphery of said susceptor. and  
said susceptor periphery member suppresses heat of said substrate from escaping outside.

24. (New) The substrate processing apparatus as recited in claim 18, further comprising a plurality of thermocouples for measuring a temperature of said substrate.